

Office Action Summary

Application No.

10/566,639

Applicant(s)

BONNER, MICHAEL R.

Examiner

LEONARD R. LEO

Art Unit

3785

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9-13,15-18,21-23,25-29 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-7,9-13,15,16,23,25-29 and 33 is/are allowed.
- 6) ☒ Claim(s) 17,18,21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The amendment filed on July 22, 2011 has been entered. Claim 14 is cancelled, and claims 1-2, 4-7, 9-13, 15-18, 21-23, 25-29 and 33 are pending.

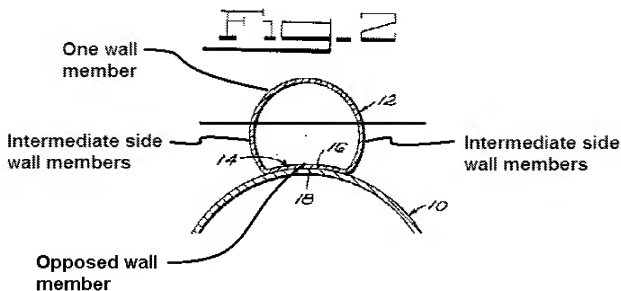
Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-18 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collito in view of Knoll and Chen

Collito (Figure 2, marked up, next page) discloses a conduit assembly comprising a fluid conveying conduit 10 and two conduit members 12 having an elongate, flexible fluid-tight wall having at least two opposed wall members, one wall member has a convex outer surface and an opposed wall member has a concave outer surface 16 and intermediate side wall members (i.e. delineated by the line) interposed there between and defining a non-circular cross section; but does not disclose a polymeric material and a rib/tab, nor the conduit members in contiguous contact with one another.



Knoll (Figure 2A) discloses an elongated conduit 1 comprising a flexible fluid-tight wall having an internal channel with a non-circular cross section and at least two opposed wall members with an axially and radially inwardly extending rib/tab 2 for the purpose of maintaining structural integrity and promoting turbulence for heat transfer.

Chen discloses a conduit assembly comprising a fluid conveying conduit 10 and two conduit members 12, 14 having at least two opposed wall members, one wall member has a convex outer surface and an opposed wall member has a concave outer surface defining a non-circular cross section; wherein the conduit members 12, 14 are in contiguous contact with one another for the purpose of maximizing the surface contact with the fluid conveying conduit 10 for heat transfer.

Since Collito and Knoll are both from the same field of endeavor and/or analogous art, the purpose disclosed by Knoll would have been recognized in the pertinent art of Collito.

Since Collito and Chen are both from the same field of endeavor and/or analogous art, the purpose disclosed by Chen would have been recognized in the pertinent art of Collito.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Collito a rib/tab for the purpose of maintaining structural integrity and promoting turbulence for heat transfer as recognized by Knoll, and employ in Collito the conduit members in contiguous contact with one another for the purpose of maximizing the surface contact with the fluid conveying conduit for heat transfer as recognized by Chen.

It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Thus, to employ a conduit composed of a polymeric requires only routine skill in the art. Inherently, the physical property of polymeric materials are flexible and would provide a conduit being inflatable by a fluid.

Regarding claim 21-22, Figure 2 of Collito discloses the first and second walls are arcuate.

Allowable Subject Matter

Claims 1-2, 4-7, 9-13, 15-16, 23, 25-29 and 33 are allowed.

Response to Arguments

The objection to the drawings under 37 CFR 1.83(a) is withdrawn in light of the replacement drawing.

The objection to the claims is withdrawn in light of the claim amendments.

The rejection of claims 11 and 29 under 35 U.S.C. 112, first paragraph, is withdrawn in light of the amendment to the specification.

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. As noted above, Chen teaches the conduit members 12, 14 are in contiguous contact with one another for the purpose of maximizing the surface contact with the fluid conveying conduit 10 for heat transfer.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/ Leonard R. Leo /
PRIMARY EXAMINER
ART UNIT 3785

September 13, 2011